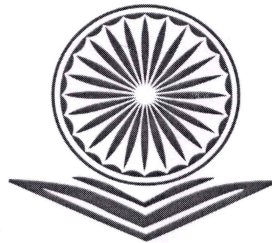


PACE INSTITUTE OF TECHNOLOGY AND SCIENCES

**Report on
Performance of Institution for the Academic Year 2021-2022
by External Peer Team of IQAC**

Submitted to



ज्ञान-विज्ञान विमुक्तये

University Grants Commission (UGC)
Bahadur Shah Zafar Marg,
New Delhi – 110002

PACE Institute of Technology and Sciences
(Autonomous)
Ongole – 523272, Andhra Pradesh

IQAC-EXTERNAL PEER TEAM REPORT ON
PERFORMANCE OF THE INSTITUTION - ACADEMIC YEAR 2021 -22

Members of External Peer Team: Dr.C.V.Subba Rao
Professor
Department of Mechanical Engineering
QISCET
Ongole

Dr.P.kiran Kumar
Assistant Professor
Department of Electronics and
Communication Engineering
NIT, Tadepalligudem

- 1. Name of the College** : PACE Institute of Technology & Sciences,
NH-16, Ongole – 523272
- 2. Name of the Principal** : Dr M. Sreenivasan
- 3. Mobile/ Email** : 9703020577
principal@pace.ac.in
www.pace.ac.in
- 4. Year of Establishment** : 2008

5. Whether private or government or University maintained

: Private / Self Financing

6. Autonomous Status

: UGC granted Autonomous Status in the year 2018

7. Name of the Affiliating University

: Jawaharlal Nehru Technological University Kakinada, Kakinada

8. Courses Offered

:

UG Courses: B.Tech.,

S. No	Program Name	Sanctioned Intake
1	Civil Engineering	120
2	Electrical & Electronics Engineering	120
3	Mechanical Engineering	60
4	Electronics & Communication Engineering	180
5	Computer Science & Engineering	180
6	CSIT	60
7	Information Technology	60
8	CSE(IOT&CSBT)	60
9	AI & DS	180
10	AI & ML	60

PG Courses: M.Tech., MBA

S. No	Program Name	Sanctioned Intake
1	Structural Engineering	18
2	VLSI and Embedded Systems	18
3	Computer Science & Engineering	18
4	MBA	120

9. Students on Rolls :

Year of study	B.Tech.,	M.Tech.,	M.B.A.	Total
1 st Year	1076	38	132	1246
2 nd Year	1157	50	112	1319
3 rd Year	1019	-	-	1019
4 th Year	927	-	-	927
Total	4179	88	244	4511

10. Faculty Strength:

Department	Professor	Associate Professor	Assistant Professor	Total
CE	04	08	30	42
EEE	05	03	25	33
ME	02	03	15	20
ECE	04	06	43	53
CSE	07	10	34	51
IT	0	01	10	11
CSIT	0	01	08	9
CSE (IoT & CSBT)	0	01	03	4
AIDS	01	01	01	3
AIML	01	0	03	4
H & S	01	09	54	64
AME	0	0	6	6
MBA	01	03	14	18
Total	26	46	246	318

11. Examination Results

Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final semester/year examination	Pass Percentage
B.Tech	Civil Engineering	178	156	87.64
B.Tech	Electrical and Electronics Engineering	125	121	96.80
B.Tech	Mechanical Engineering	115	108	93.91
B.Tech	Electronics & Communication Engineering	190	173	91.05
B.Tech	Computer Science and Engineering	185	175	94.59
B.Tech	Information Technology	62	59	95.16
B.Tech	Auto Mobile Engineering	55	51	92.73
M.Tech	Machine Design	4	4	100.00
M.Tech	Power Electronics	5	5	100.00
M.Tech	Computer Science and Engineering	9	9	100.00
M.Tech	Structural Engineering	14	14	100.00
M.Tech	VLSI & Embedded Systems	4	4	100.00
MBA	Master of Business Administration	100	89	89.00

PACE Institute of Technology & Sciences (PACE ITS), situated in Ongole, Andhra Pradesh, was founded in 2008 under the stewardship of the Srinivasa Educational Society. The institute is approved by the All India Council for Technical Education (AICTE) and affiliated with Jawaharlal Nehru Technological University, Kakinada (JNTUK). Acknowledging its academic

standards and institutional quality, the University Grants Commission (UGC) conferred autonomous status on the college in 2018, which has been extended through 2028.

To support efficient academic and administrative functioning, PACE ITS has adopted a comprehensive Management Information System (MIS). This system facilitates systematic monitoring of both academic and non-academic activities, including student and staff attendance, academic progress, and internal evaluations. The institution makes extensive use of e-communication tools and digital platforms to ensure effective interaction among faculty, students, and other stakeholders, thereby strengthening the Teaching-Learning Process (TLP).

Student achievement is continuously assessed through a well-defined mechanism that includes attendance, assignments, tutorials, and internal examinations. These components are tracked using the E-CAP system, an essential module of the MIS. Students identified as academically weak are provided with targeted support such as counseling sessions and remedial instruction to enhance their academic performance.

E-Asset is another key module of the MIS, designed for the systematic monitoring and management of institutional resources. It enables efficient tracking of laboratory equipment, machinery, furniture, and computer systems, ensuring proper utilization, maintenance, and accountability of assets.

The leadership and governance framework at PACE ITS is structured in accordance with UGC and AICTE norms. Faculty members play an active role in academic as well as administrative responsibilities, promoting a participative, transparent, and empowered institutional culture.

The Internal Quality Assurance Cell (IQAC) of PACE ITS was constituted on June 10, 2016. Since its establishment, the IQAC has been instrumental in sustaining academic excellence and implementing quality enhancement initiatives across the institution. Its activities focus on overall institutional

growth, encompassing curriculum design, faculty development, infrastructure improvement, and the systematic collection of stakeholder feedback.

During the academic year 2021–2022, the institution recorded notable improvements across various key performance indicators, underscoring its dedication to quality, excellence, and continuous institutional advancement.

CURRICULAR ASPECTS (2021–2022)

- As a UGC Autonomous institution, the college designs and implements curricula aligned with local, regional, national, and global developmental needs, reflected through Programme Outcomes (POs), Programme Specific Outcomes (PSOs), and Course Outcomes (COs).
- Regulations and curriculum were revised during the academic year 2021–22, following structured review mechanisms and stakeholder inputs.
- Syllabus revision was carried out in 10 programmes during the assessment year, with approvals through Boards of Studies and the Academic Council.
- The institution offered 17 courses focusing on employability, entrepreneurship, and skill development, as part of curriculum enrichment.
- Choice Based Credit System (CBCS) / Elective Course System is implemented in all 15 programmes offered by the institution.
- The curriculum integrates cross-cutting issues related to Professional Ethics, Gender, Human Values, Environment, and Sustainability, across programmes.
- The institution offered 7 value-added courses aimed at imparting transferable and life skills during the year.
- 980 students enrolled in value-added courses offered under curriculum enrichment.

- 860 students undertook projects, internships, fieldwork, or student projects, supporting experiential and practical learning.
- The institution has a structured feedback mechanism for curriculum and syllabus review, obtaining feedback from Students, Teachers, Employers, and Alumni.
- Feedback collected is analysed, and action taken is made available on the institutional website, ensuring continuous curriculum improvement.

TEACHING – LEARNING AND EVALUATION (2021–2022)

- During 2021–22, 1246 students were admitted across programmes following the prescribed admission procedures.
- 585 seats were filled against reserved categories (SC/ST/OBC/Divyangjan) as per Government norms, ensuring equity and inclusiveness.
- The institution assesses students’ learning levels through continuous internal assessments, enabling the identification of slow and advanced learners.
- Remedial classes are conducted for slow learners to strengthen conceptual understanding and academic performance.
- Advanced learners are encouraged to participate in professional bodies, innovative projects, research activities, certifications, and competitive examinations.
- The institution adopts student-centric teaching methods such as experiential learning, participative learning, and problem-solving methodologies, aligned with Outcome-Based Education (OBE).
- Teaching–learning practices include group discussions, seminars, mini projects, interdisciplinary projects, assignments, quizzes, internships, industrial visits, workshops, and expert talks.
- ICT-enabled teaching tools are extensively used, with classrooms and seminar halls equipped with projectors, internet facilities, smart classrooms, and digital learning resources.

- Online learning resources such as NPTEL, SWAYAM, Spoken Tutorials, MOOCs, and e-journals are encouraged to supplement classroom teaching.
- A structured mentoring system is in place with 318 faculty mentors supporting students in academic and related issues.
- The institution prepares and strictly adheres to the Academic Calendar, which is published on the website and monitored through internal reviews.
- The institution had 318 full-time teachers during the academic year 2021–22.
- 56 faculty members possess Ph.D. qualifications, contributing to academic quality, mentoring, and research culture.
- Faculty members actively engage in teaching, assessment, mentoring, curriculum delivery, and academic administration, ensuring effective learning outcomes.
- The institution follows a transparent and well-defined evaluation system integrated with IT for examination management.
- Continuous Internal Assessment (CIA) is implemented through mid-examinations, assignments, tests, and day-to-day evaluation, contributing to outcome attainment.
- Examination processes such as marks entry, result processing, grade calculation, CGPA computation, hall tickets, and fee payment are fully automated.
- Results were declared within 35 days from the completion of semester-end examinations.
- Zero grievances were reported related to examination and evaluation during the assessment year.
- POs, PSOs, and COs are clearly defined, communicated, and displayed on the institutional website, departments, and classrooms in compliance with OBE norms.

- CO and PO attainments are evaluated using direct (80%) and indirect (20%) assessment methods, including examinations, assignments, projects, internships, and surveys.
- Attainment levels are reviewed periodically, and corrective measures are implemented where targets are not met.
- The institution recorded a high pass percentage of final-year students in the examinations conducted during the academic year 2021–22, indicating effective teaching–learning processes and robust academic support mechanisms.
- Programme-wise pass data are systematically maintained and verified, demonstrating consistency in student performance across disciplines.
- The institution conducted a Student Satisfaction Survey (SSS) for 2021–22, and the results are published on the institutional website for transparency and improvement.

RESEARCH, INNOVATIONS, AND EXTENSION (2021–2022)

- The institution has a well-defined Research Policy, approved and implemented, to promote research among faculty and students.
- Research facilities are periodically updated, and faculty are encouraged to submit project proposals to external funding agencies.
- The institution provides institutional support and incentives for Research publications, Book and chapter publications, Patent filing as per the approved research policy.
- The institution received ₹35.47 lakhs as research grants from Government and Non-Government agencies during the assessment year.
- Dr G.V.K.Murthy and Dr.D.Anil Kumar were involved in ongoing research projects during 2021–22.
- Dr T.R.Chaitanya faculty member is recognized as a research guide by the affiliating university.

- EEE and ECE departments had research projects funded by Government / Non-Government agencies.
- The institution has established an innovation and entrepreneurship ecosystem through the Institution Innovation Council (IIC) and Entrepreneurship Development Cell.
- 14 workshops/seminars on Research Methodology, IPR, Entrepreneurship, and Skill Development were conducted during the year.
- The institution ensures adherence to a Code of Ethics for Research, supported by a Research Advisory Committee, Ethics Committee, and plagiarism-checking software.
- No Ph.D. candidates were registered during 2021–22.
- The institution generated ₹18.44 lakhs as revenue from consultancy and corporate training during 2021–22.
- An equal amount of ₹18.44 lakhs was spent on developing facilities and training faculty and staff for consultancy activities, indicating reinvestment into capacity building.
- The institution actively carried out extension activities through NSS, NCC, and Unnat Bharat Abhiyan, focusing on social responsibility and community engagement.
- 40 extension and outreach programmes were conducted during the academic year.
- 7483 students participated in extension and outreach activities, demonstrating wide student involvement.
- The institution carried out 23 collaborative activities related to research, internships, on-the-job training, and project work.
- 24 functional MoUs were maintained with industries, institutions, and organizations of national importance, supporting academic, research, and extension activities.

INFRASTRUCTURE AND LEARNING RESOURCES (2021–2022)

- The institution has adequate physical infrastructure to support teaching–learning activities, including classrooms, laboratories, seminar halls, computing facilities, and learning spaces, as per AICTE and affiliating university norms.
- The campus comprises ICT-enabled classrooms and seminar halls, ensuring effective use of modern teaching aids.
- 80 classrooms and seminar halls are equipped with ICT facilities.
- The institution incurred ₹535.12 lakhs (excluding salary) towards infrastructure augmentation during the academic year, reflecting continuous investment in physical resources.
- Adequate facilities are available for sports, games, cultural activities, yoga, and physical fitness, supporting students’ holistic development.
- The central library is fully automated using an Integrated Library Management System (ILMS – ECAP), facilitating efficient access and circulation of learning resources.
- The institution has access to e-journals, e-books, databases, e-ShodhSindhu, and Shodhganga, strengthening academic and research support.
- During 2021–22, the institution spent ₹8.64 lakhs on purchase of books, e-books, and subscription to journals/e-journals.
- Library usage data indicate regular utilization by students and faculty, supporting teaching, learning, and research activities.
- The institution maintains a robust IT infrastructure, supported by a well-defined IT policy covering Wi-Fi, cyber security, and system upgrades.
- The campus has 1080 computers for academic purposes, catering to 4511 students, ensuring adequate access to computing resources.
- Internet connectivity with sufficient bandwidth is provided across the campus to support academic, administrative, and research needs.
- Facilities for e-content development are available, including media centre, audio-visual facilities, lecture capturing systems, and content editing tools.

- The institution has established systems and procedures for maintenance and optimal utilization of physical, academic, and support facilities, including classrooms, laboratories, library, sports facilities, and IT resources.
- Maintenance activities are carried out through internal committees and external agencies, ensuring regular upkeep, safety, and functionality of infrastructure.
- ₹535.12 lakhs was incurred towards maintenance of physical and academic support facilities (excluding salary) during the year.

STUDENT SUPPORT AND PROGRESSION (2021-2022)

- The institution organized various **capability enhancement and development schemes**, including:
 - Soft skill training
 - Aptitude development
 - Communication and personality development workshops
 - Career guidance sessions
 - Competitive exam preparation
- The institution provided financial support through Government scholarships and freeships to 2818 students, ensuring access, equity, and inclusiveness.
- 325 students benefited from institutional and non-government scholarships, supplementing Government support mechanisms.
- 2116 students received career guidance and coaching for competitive examinations, strengthening employability and higher-education readiness.

Name of the Capacity Development and Skill Enhancement programme	Year of implementation	Number of students enrolled	Name of the agencies/consultants involved with contact details, if any
TCS & WIPRO TRAINING	2021	585	Dept. of Training & Placements, PACEITS

MINDTREE TRAINING	2021	238	Dept. of Training & Placements, PACEITS
QUEST GLOBAL TRAINING	2021	217	Dept. of Training & Placements, PACEITS
HCL TRAINING	2021	205	Dept. of Training & Placements, PACEITS
COMMUNICATION SKILLS -KEY TO CAREER	2021	550	Dept. of Training & Placements, PACEITS
ROLE OF SOFTSKILLS IN PROFESSIONAL SUCCESS	2021	580	Dept. of Training & Placements, PACEITS
INFYTQ TRAINING	2021	525	Dept. of Training & Placements, PACEITS
CRT TRAINING (APTITUDE & VERBAL)	2022	890	Dept. of Training & Placements, PACEITS
HEXAWARE TRAINING	2022	322	Dept. of Training & Placements, PACEITS
EUNIMART TRAINING	2022	141	Dept. of Training & Placements, PACEITS
IBI GROUP TRAINING	2022	141	Dept. of Training & Placements, PACEITS

- A robust grievance redressal mechanism is in place, including Anti-Ragging Committee, Internal Complaints Committee, and Student Grievance Redressal Cell, with statutory compliance and awareness creation.
- 603 outgoing students were successfully placed during the academic year through institutional training and placement support.
- 18 students progressed to higher education, indicating academic continuity and aspiration for advanced studies.
- 39 Students qualified in state, national, and international level examinations (such as GATE, CAT, GRE, etc.).
- Students received 5 awards/medals for outstanding performance in sports and cultural activities at inter-university/state/national levels.

- The institution organized sports and cultural events, promoting holistic development and student engagement.
- Students actively participated in academic and administrative bodies, ensuring representation through class committees, councils, and institutional forums.
- A functional Alumni Association (PACER) supports the institution through mentoring, guest lectures, placement support, and academic inputs.
- Alumni financial contribution during the year was below ₹2 lakhs

GOVERNANCE, LEADERSHIP AND MANAGEMENT:

- The institution has adopted quality improvement strategies in the following areas:
 - Industry interaction and collaboration
 - Admission of students
 - Examination and evaluation
 - Research and Development
 - Human Resource Management
 - Library, ICT, and Physical Infrastructure / Instrumentation
 - Curriculum Development
 - Teaching–Learning Process
- The institution effectively implements e-governance in the following areas of operation:
 - Planning and Development
 - Administration
 - Finance and Accounts
 - Student Admission and Support
 - Examinations
- The institution follows a decentralized administrative structure, with clearly defined roles, responsibilities, and accountability at various levels to ensure effective governance and participative management.

- Institute-level committees are constituted to oversee and monitor key functional areas, including:
 - Quality Assurance (IQAC)
 - Training and Placement
 - Alumni Engagement
 - Clubs and Professional Chapters
 - Conferences, Workshops, Seminars, and Industry Visits
- Faculty empowerment strategies are actively implemented, wherein faculty members are provided with financial support and institutional encouragement to participate in conferences, workshops, faculty development programmes, and training initiatives.
- To maintain and enhance internal quality, Academic and Administrative Audits are conducted regularly by internal and external audit teams, and the findings are reviewed for continuous improvement.

INSTITUTIONAL VALUES AND BEST PRACTICES:

The following initiatives are taken by the institution to make the campus eco-friendly.

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Hazardous chemicals and radioactive waste management
- Waste recycling system

Best Practices of the Institution:

Best Practice-1: Creation and maintenance of an Eco-friendly Campus

The objectives of this initiative are:

- Creating awareness among the college community, an atmosphere and a learning environment that advances civil and sustainable growth.
- Cheering the college community to steer and uphold sustainable solutions through teaching, research and extension activities that tackle live issues of the campus and its adjacent communities.
- Ensuring the preservation of biological diversity and the protection of this eco sensitive area by adopting thud and sustainable growth.
- Fastening the traditional knowledge and practices of local communities and involving them in the conservation and sustainable use of these resources.

Practice: Eco-Friendly Practices followed on the campus are:

➤ **Grid-connected rooftop solar photovoltaic power projects:**

The College has embarked upon roof-top solar installations with an installed capacity of 350 kW. If the power requirement of the Institution is less than the Solar-generated power is then fed to the grid as surplus.

➤ **Green landscaping with trees and plants:**

The institution has taken several measures for plantation with the vision of a Green Campus. The campus is covered with trees. Tree plantation on the campus is a regular activity of the NSS wing.

Best Practice-2: Education Beyond the Classrooms

Education Beyond the Classrooms at PACE includes all those things which are deliberately intended to enhance the educational experience. It encompasses everything from the academic curriculum to sports and games, community engagement, opportunities for performance and outreach activities for the benefit of the community.

The objectives of this initiative are:

- To identify appropriate strategies for teaching and learning outside the

classroom.

- To enhance the educational experience by indulging in innovative and interesting new approaches of building knowledge.

Practice

- Education beyond the classroom is achieved through the following ways:
- Professional Certification Programs
- Self Learning Programs
- Internships
- Extension and Community Outreach
- Involvement in Literary Clubs, E cell, Women's empowerment, and other extracurricular activities.
- Sports and games.

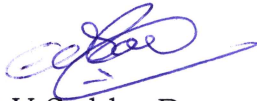
Significant contributions made by IQAC during the current year:

- Periodical Academic Audit is conducted by internal and external experts to ensure the improvement of quality in education.
- Webinars and seminars are being conducted to the students and faculty community to improve the quality in academics and administration.
- The institute participated in ARIIA, AISHE, NIRF, APSCHE, and Institution Innovation Council (IIC) by the initiation of IQAC.
- Improved attainments and CO - PO mapping.
- Extension activities for overall development of students.

Concluding Remarks:

- PACE Institute of Technology and Sciences has consistently maintained high academic standards across curriculum design, teaching-learning processes, evaluation practices, timely declaration of results, and research and development activities.

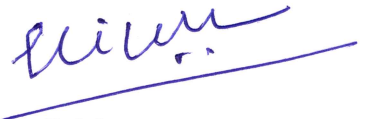
- Significant and measurable improvements are evident across all key performance indicators as assessed by national regulatory and accreditation bodies.



Dr.C.V.Subba Rao

Professor

Department of Mechanical Engineering,
QISCET, Ongole



Dr.P.kiran Kumar

Assistant Professor

Department of ECE
NIT, Tadepalligudem